

ABSTRACT

BACKGROUND: Acute diarrhoeal illness is a major cause of pediatric mortality and morbidity. Rotavirus is the major infectious pathogen causing diarrhoea in children under 5 years of age. Vaccines have been widely used in the western countries for the past two decades. An indigenous vaccine isolated from an Indian neonate was developed into 116E vaccine. It was recently introduced in the Universal Immunisation Programme.

AIMS & OBJECTIVES:

To assess the burden of rotaviral diarrhoea and analyse the common genotypes among children admitted with acute diarrhoea in our setup.

To analyse the epidemiology of intussusception in children under 2 years of age admitted in our setup.

MATERIALS & METHODS:

A cross-sectional observational study was conducted at Institute of Child Health & Research Centre (ICH&RC), Government Rajaji Hospital, in children under 5 years of age admitted with acute diarrhoea. History, vaccination status, clinical examination, stool analysis was done. A surveillance study of children under 2 years of age admitted with intussusceptions was also done.

RESULTS:

Out of 180 cases admitted with acute diarrhoea, the mean age was 12 months, with 76% under 1 year of age. Out of the 180 children, 42% had received rotavirus vaccination (partial & complete) while 58% had not received vaccine. Out of this only 24% had received complete vaccination. Stool testing by ELISA for VP6 antigen was done for 180 cases. It revealed a positivity of 32.2%. The common G-P genotypes found were G3P8 43% G3+G12P8 15.7%,

G1P8 14%, G12P8 8.7%, G3+G10P8 5%, G9P4, G3P4, G3+G9P8, G3P6+P8, untypable 1.7% each. A comparison was done between stool ELISA positivity for the presence of rotavirus between the vaccinated (complete) and unvaccinated groups. A statistical significance P value = 0.035 was found in the incidence of diarrhoea between vaccinated and unvaccinated group.

CONCLUSION:

Rotavirus is the major infectious pathogen causing acute diarrhoea in our community with a prevalence of 32.2%. Rotavirus vaccine is effective in decreasing the burden of acute diarrhoeal illness.

Keywords : Diarrhoea, rotavirus, vaccine, impact, intussusception.